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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,334	09/30/2003	Zhen Liu	YOR920030104US1	4637
7590 Frederick W. Gibb, III McGinn & Gibb, PLLC Suite 304 2568-A Riva Road Annapolis, MD 21401			EXAMINER LIU, LIN	
			ART UNIT 2145	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/674,334

Applicant(s)

LIU ET AL.

Examiner

Lin Liu

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15,17-21 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8, 10-15,17-21 and 23-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is responsive to communications filed on 08/16/2007

Claims 1, 3-8, 10-15, 17-21 and 23-31 are pending and have been examined.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 3-8, 10-15, 17-21 and 23-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended the claims to add the additional limitation: "*wherein said nodes in said distribution tree lack group state information*", which is not explicitly found in the specification. Applicant has not pointed out wherein the specification support can be found for the limitation. All of the other dependent claims are rejected for the same reason.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 3-8, 10-15, 17-21 and 23-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended the

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claims to add the additional limitation: "*wherein said nodes in said distribution tree lack group state information*", which is a negative limitation that rendered the claims indefinite (See MPEP 2173.05 (i) Negative Limitations section).

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. **Claims 1, 3-7 and 28** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/674335. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

- the limitation "modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution

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levels of said distribution tree.” recited on the present application is substantially the same as the limitation “modifying said header as said data packet is distributed down said distribution tree to repair said distribution tree.” recited on the copending application #: 10/674335.

8. **Claims 8, 9-27, 29-31** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-32 of copending Application No. 10/674335 in view of **Auerbach et al. (patent no.: US 5,355,371)**.

9. The instant claims of the present application do not explicitly disclose detecting failed nodes and remove the failed nodes. However, Auerbach discloses detecting failed nodes and remove failed nodes (Auerbach, col. 10, lines 18-34, noted that the Tree leader recognizes the possible node failure and remove them from the tree). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the instant claims of the present invention to include the feature of detecting failed nodes and removing the failed node as taught by Auerbach with motivation being that it provides better quality of service in delivering packets from one node to another.

10. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims of present application	Claims of application #: 10/674335
<b>Claim 1.</b> A method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:	<b>Claim 1.</b> A method of stateless group communication and repair of data packets to nodes in a distribution tree, said method comprising:

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<p>encoding said distribution tree to produce an encoded distribution tree;</p> <p>creating a header including said encoded distribution tree; and</p> <p>adding said header to a data packet to be distributed to said distribution tree.</p> <p>modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.</p>	<p>encoding said distribution tree to produce an encoded distribution tree;</p> <p>creating a header including said encoded distribution tree;</p> <p>adding said header to a data packet to be distributed to said distribution tree; and</p> <p>modifying said header as said data packet is distributed down said distribution tree to repair said distribution tree.</p>
<b>Claim 8</b>	<b>Claim 9</b>
<p><b>Claim 8.</b> A method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:</p> <p>encoding said distribution tree to produce an encoded distribution tree;</p> <p>creating a header including said encoded distribution tree; and</p> <p>adding said header to a data packet to be distributed to said distribution tree,</p> <p>processing said encoded distribution tree at each node, thereby indicating to which node said data packet should be next transferred.</p> <p>modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.</p>	<p><b>Claim 9.</b> A method of stateless group communication of data packets to nodes in a distribution tree, said method comprising:</p> <p>encoding said distribution tree to produce an encoded distribution tree;</p> <p>creating a header including said encoded distribution tree;</p> <p>adding said header to a data packet to be distributed to said distribution tree;</p> <p>detecting failed nodes down said distribution tree;</p> <p>modifying said header as said data packet is distributed down said distribution tree to skip said failed node and remove said failed node from said encoded distribution tree.</p>

<b>Claim 15</b> <b>Claim 15.</b> A method of stateless group communication of data packets to nodes in a distribution tree, said method comprising:  encoding said distribution tree to produce an encoded distribution tree;  creating a header including said encoded distribution tree; and  adding said header to a data packet to be distributed to said distribution tree;  decoding a portion of said encoded distribution tree as a node receives said data packet; and  re-encoding said encoded distribution tree as said node passes said data packet to another node down said distribution tree, wherein said decoding and re-encoding modifies said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.	<b>Claim 17</b> <b>Claim 17.</b> A method of stateless group communication of data packets to nodes in a distribution tree, said method comprising:  encoding said distribution tree to produce an encoded distribution tree;  creating a header including said encoded distribution tree;  adding said header to a data packet to be distributed to said distribution tree;  detecting failed nodes down said distribution tree;  modifying said header as said data packet is distributed down said distribution tree to pass said data packet around said failed node.
<b>Claim 21</b> <b>Claim 21.</b> A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:  encoding said distribution tree to produce an encoded distribution tree;	<b>Claim 25</b> <b>Claim 25.</b> A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of extracting circuit characteristics from a circuit design, said method comprises establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:  encoding said distribution tree to produce an encoded distribution tree;

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creating a header including said encoded distribution tree; and	creating a header including said encoded distribution tree;
adding said header to a data packet to be distributed to said distribution tree.	adding said header to a data packet to be distributed to said distribution tree;
modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.	detecting failed nodes down said distribution tree;
	modifying said header as said data packet is distributed down said distribution tree to skip said failed node and remove said failed node from said encoded distribution tree.

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 4-8, 11-14, 21, 24-29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by **Crawley et al. (Patent no.: US 5,995,503)**.

With respect to **claim 1**, Crawley teaches a method of establishing transmission sheaders for stateless group communication of data packets to nodes in a distribution tree (Crawley, figures 11 and 12), said method comprising:

encoding said distribution tree to produce an encoded distribution tree (Crawley, col. 10, lines 48-60 and col. 11, lines 1-8, noted that distribution tree is encoded);



creating a header including said encoded distribution tree (Crawley, col. 10, lines 38-60, noted that an Explicit Routing Advertisement (ERA) header); and

adding said header to a data packet to be distributed to said distribution tree (Crawley, fig. 11, col. 10, lines 38-45, noted that ERA header is encapsulated in the ERA 252 information),

wherein said nodes in said distribution tree lack group state information (Crawley: abstract, col. 1, lines 12-29, and col. 2, lines 34-45); and

modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree (Crawley, col. 10 lines 30-37, and col. 11 line 61 to col. 12 line 8, noted that the ERA header is adjusted as the ERA data is distributed to other hops in the network.).

With respect to **claim 4**, Crawley teaches the method in claim 1, wherein said distribution tree controls the order in which said nodes receive said data packets (Crawley, col. 10, line 61 to col. 11, line 8, noted that the node is constructed in order).

Consider **claim 5**, Crawley teaches the method in claim 4, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt (Crawley, col. 11, lines 3-15, noted that the first hop router performs the path calculations).

With respect to **claim 6**, Crawley teaches the method in claim 1, further comprising, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes (Crawley, col. 10, lines 56-59).

With respect to **claim 7**, Crawley teaches the method in claim 1, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree (Crawley, col. 11, lines 1-8, noted that the routers are arranged in sequentially order).

With respect to **claim 8**, Crawley, teaches a method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree (Crawley, figures 11 and 12), said method comprising:

encoding said distribution tree to produce an encoded distribution tree (Crawley, col. 10, lines 48-60 and col. 11, lines 1-8, noted that distribution tree is encoded);

creating a header including said encoded distribution tree (Crawley, col. 10, lines 38-60, noted that an Explicit Routing Advertisement (ERA) header); and

adding said header to a data packet to be distributed to said distribution tree (Crawley, fig. 11, col. 10, lines 38-45, noted that ERA header is encapsulated in the ERA 252 information),

wherein said nodes in said distribution tree lack group state information (Crawley: abstract, col. 1, lines 12-29, and col. 2, lines 34-45);

processing said encoded distribution tree at each node of said nodes, thereby indicating to which node of said nodes said data packet should be next transferred (Crawley, col. 10, line 61 to col. 11, line 8, noted that the process of encoding the distribution tree is traversed down the tree in a preorder arrangement of the node); and

modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said

distribution tree (Crawley, col. 10 lines 30-37, and col. 11 line 61 to col. 12 line 8, noted that the ERA header is adjusted as the ERA data is distributed to other hops in the network.).

With respect to **claim 11** the limitations of this claim are substantially the same as those in claim 4. Therefore the same rationale for rejecting claim 4 is used to reject claim 11. By this rationale **claim 11** is rejected.

With respect to **claim 12** the limitations of this claim are substantially the same as those in claim 5. Therefore the same rationale for rejecting claim 5 is used to reject claim 12. By this rationale **claim 12** is rejected.

With respect to **claim 13** the limitations of this claim are substantially the same as those in claim 6. Therefore the same rationale for rejecting claim 6 is used to reject claim 13. By this rationale **claim 13** is rejected.

With respect to **claim 14** the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 14. By this rationale **claim 14** is rejected.

**Claim 21** lists all the same elements of **claim 1**, but in computer program instructions form rather than method form. Therefore, the supporting rationale of the rejection to **claim 1** applies equally as well to **claim 21**.

With respect to **claim 22** the limitations of this claim are substantially the same as those in claim 2. Therefore the same rationale for rejecting claim 2 is used to reject claim 22. By this rationale **claim 22** is rejected.

With respect to **claim 24** the limitations of this claim are substantially the same as those in claim 4. Therefore the same rationale for rejecting claim 4 is used to reject claim 24. By this rationale **claim 24** is rejected.

With respect to **claim 25** the limitations of this claim are substantially the same as those in claim 5. Therefore the same rationale for rejecting claim 5 is used to reject claim 25. By this rationale **claim 25** is rejected.

With respect to **claim 26** the limitations of this claim are substantially the same as those in claim 6. Therefore the same rationale for rejecting claim 6 is used to reject claim 26. By this rationale **claim 26** is rejected.

With respect to **claim 27** the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 27. By this rationale **claim 27** is rejected.

With respect to **claim 28**, Crawley teaches the program storage device in claim 21, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees (Crawley: col. 1, lines 30-54).

With respect to **claim 29** the limitations of this claim are substantially the same as those in claim 28. Therefore the same rationale for rejecting claim 28 is used to reject claim 29. By this rationale **claim 29** is rejected.

With respect to **claim 31** the limitations of this claim are substantially the same as those in claim 28. Therefore the same rationale for rejecting claim 28 is used to

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reject claim 31. By this rationale **claim 31** is rejected.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 3, 10, 15, 17-20, 23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Crawley et al. (Patent no.: US 5,995,503)** in view of **Mittra (Patent no.: US 5,748,736)**.

With respect to **claim 3**, Crawley teaches all the claimed limitations except that he does not explicitly teach a method of decoding a portion of the distribution tree and re-encoding the distribution tree.

In the same field of endeavor, Mittra teaches a method of decoding a portion of the distribution tree and re-encoding the distribution tree (Mittra, col. 14, lines 11-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of decoding a portion of the distribution tree and re-encoding the distribution tree as taught by Mittra in Crawley's invention with motivation being that it provides a stronger encryption algorithm in encoding the data transmission of the distribution tree.

With respect to **claim 10**, the limitations of this claim are substantially the same as those in claim 3. Therefore the same rationale for rejecting claim 3 is used to reject claim 10. By this rationale **claim 10** is rejected.

With respect to **claim 15**, Crawley teaches a method of stateless group communication of data packets to nodes in a distribution tree (Crawley, figures 11 and 12), said method comprising:

encoding said distribution tree to produce an encoded distribution tree (Crawley, col. 10, lines 48-60 and col. 11, lines 1-8, noted that distribution tree is encoded);

creating a header including said encoded distribution tree (Crawley, col. 10, lines 38-60, noted that an Explicit Routing Advertisement (ERA) header); and

adding said header to a data packet to be distributed to said distribution tree (Crawley, fig. 11, col. 10, lines 38-45, noted that ERA header is encapsulated in the ERA 252 information),

wherein said nodes in said distribution tree lack group state information (Crawley: abstract, col. 1, lines 12-29, and col. 2, lines 34-45),

modify said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution

tree (Crawley, col. 10 lines 30-37, and col. 11 line 61 to col. 12 line 8, noted that the ERA header is constructed by traversing the tree and it is used to remove the routing information).

However, Crawley does not explicitly teach a method of decoding a portion of the distribution tree and re-encoding the distribution tree.

In the same field of endeavor, Mittra teaches a method of decoding a portion of the distribution tree and re-encoding the distribution tree (Mittra, col. 14, lines 11-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of decoding a portion of the distribution tree and re-encoding the distribution tree as taught by Mittra in Crawley's invention with motivation being that it provides a stronger encryption algorithm in encoding the data transmission of the distribution tree.

With respect to **claim 17**, Crawley teaches the method in claim 15, wherein said distribution tree controls the order in which said nodes receive said data packets (Crawley, col. 10, line 61 to col. 11, line 8, noted that the node is constructed in order).

With respect to **claim 18**, Crawley teaches the method in claim 17, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt (Crawley, col. 11, lines 3-15, noted that the first hop router performs the path calculations).

With respect to **claim 19**, Crawley teaches the method in claim 15, further comprising, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes (Crawley, col. 10, lines 56-59).

With respect to **claim 20**, Crawley teaches the method in claim 15, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree (Crawley, col. 11, lines 1-8, noted that the routers are arranged in sequentially order).

With respect to **claim 23**, the limitations of this claim are substantially the same as those in claim 3. Therefore the same rationale for rejecting claim 3 is used to reject claim 23. By this rationale **claim 23** is rejected.

With respect to **claim 30**, Crawley teaches the program storage device in claim 15, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees (Crawley: col. 1, lines 30-54).

### ***Response to Arguments***

16. Applicant's arguments filed on 08/16/2007 have been fully considered but they are not persuasive.

17. In response to applicant's argument that "the "ERA header" of Crawley does not include an encoded distribution tree. Rather, the encoded distribution tree in Crawley is positioned in the "body" of the ERA." The examiner disagrees. The "encoding of a distribution tree" recited in the present claim is not a physical or viewable tree; rather it is a mechanism of encoding a data routing path, which is applied/included to process the header of a data packet. Similarly, in the analogous art of Crawley, he teaches generating an Explicit Routing Advertisement (ERA) data packet containing the



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calculated distribution tree of data routing information (Crawley, col. 9, lines 55-65 and col. 10, lines 56-60). This teaching is equivalent to processing of the ERA data header. Thus meeting the scope of the claimed limitations as presently recited.

18. In response to applicant's argument that "Furthermore, the ERA header of Crawley is not added to a data packet to be distributed to the distribution tree." The examiner disagrees. Crawley explicitly teaches generating an Explicit Routing Advertisement (ERA) data packet containing forwarding information and ERA data (Crawley: fig. 11) is distributed to other routers in the network. (Crawley: col. 9, lines 55-65 and col. 10, lines 30-37).

19. In response to applicant's arguments, the recitation "In addition, the prior art of record does not teach or suggest "state/ess" group communication." has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

20. In addition, in response to applicant's argument that "In addition, the prior art of record does not teach or suggest "state/ess" group communication." The examiner disagrees. Crawley explicitly teaches a connectionless network having multiple nodes (Crawley: abstract).

21. In response to applicant's newly added claims 28-31 that "wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees.", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

### ***Conclusion***

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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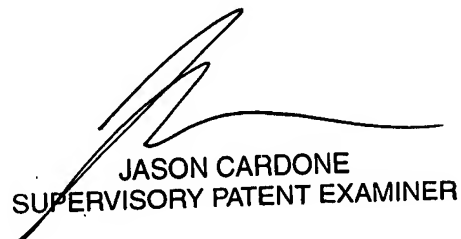
- Stone (Patent no.: US 6,757,286 B1) discloses a self-configuring communication network.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-1447.

The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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